

**UTILITY
PATENT APPLICATION
TRANSMITTAL**
(only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	1875.1730001
First Inventor	Sam Ziqun Zhao
Title	Method for Making an Enhanced Die-Up Ball Grid Array Package With Two Substrates (as amended)
Express Mail Label No.	

APPLICATION ELEMENTS
See MPEP chapter 600 concerning utility patent application contents.

ADDRESS TO: Mail Stop Patent Application
Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

1. ☒ Fee Transmittal Form (e.g., PTO/SB/17)
(Submit an original, and a duplicate for fee processing)
2. ☐ Applicant claims small entity status.
See 37 CFR 1.27.
3. ☒ Specification [Total Pages:55]
(preferred arrangement set forth below)
- Descriptive title of the invention
- Cross Reference to Related Applications
- Statement Regarding Fed sponsored R & D
- Reference to sequence listing, a table, or a computer program listing appendix
- Background of the Invention
- Brief Summary of the Invention
- Brief Description of the Drawings (if filed)
- Detailed Description
- Claim(s)
- Abstract of the Disclosure
4. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 35]
5. ☒ Oath or Declaration [Total Pages 2]
a. ☐ Newly executed (original or copy)
b. ☒ Copy from a prior application (37 CFR 1.63(d))
(for continuation/divisional with Box 18 completed)
i. ☐ **DELETION OF INVENTOR(S)**
Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6. ☒ Application Data Sheet. See 37 CFR 1.76.

7. ☐ CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
a. ☐ Computer Readable Form (CRF)
b. Specification Sequence Listing on:
i. ☐ CD-ROM or CD-R (2 copies); or
ii. ☐ paper
c. ☐ Statements verifying identity of above copies

2386 U.S. PTO
10/730093
120903

ACCOMPANYING APPLICATION PARTS

9. ☐ Assignment Papers (cover sheet & document(s))
10. ☐ 37 CFR 3.73(b) Statement (when there is an assignee) ☐ Power of Attorney
11. ☐ English Translation Document (if applicable)
12. ☐ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS Citations
13. ☒ Preliminary Amendment
14. ☒ Two Return Receipt Postcards (MPEP 503)
(Should be specifically itemized)
15. ☐ Certified Copy of Priority Document(s)
(if foreign priority is claimed)
16. ☐ Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
17. ☒ Other: Authorization under 37 C.F.R. § 1.136(a)(3)
☒ Other: The name of the assignee is: Broadcom Corporation

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

☐ Continuation ☒ Divisional ☐ Continuation-in-Part (CIP) of prior application No: 10/101,751
Prior application information: Examiner Dinh, Tuan T. Art Unit: 2827

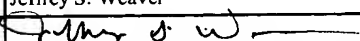
For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

19. CORRESPONDENCE ADDRESS

☒ Customer Number 26111

or ☐ Correspondence address below

NAME	STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.					
	Attorneys at Law					
ADDRESS	1100 New York Avenue N.W.					
CITY	Washington	STATE	DC	ZIP CODE	20005	
COUNTRY	U.S.A.	TELEPHONE	(202) 371-2600	FAX	(202) 371-2540	

NAME (Print/Type)	Jeffrey S. Weaver	Registration No. (Attorney/Agent)	45,608
SIGNATURE		Date	12-9-03

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you are required to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

3281 U.S. PTO

FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$1,310.00

Complete if Known

Application Number	To be assigned (Div. of Appl. N . 10/101,751; filed March 21, 2002)
Filing Date	D c mber 9, 2003
First Named Inventor	Sam Ziquan Zhao
Examiner Name	To b assign d
Art Unit	To b assigned
Attorney Docket No.	1875.1730001

METHOD OF PAYMENT (check all that apply)

☐ Check ☒ Credit card ☐ Money Order ☒ Other** ☐ None
 ** Charge any deficiencies or credit any overpayments in the fees or fee calculations of Parts 1, 2 and 3 below to Deposit Account No. 19-0036.

☐ Deposit Account
 Deposit Account Number 19-0036
 Deposit Account Name: Sterne, Kessler, Goldstein & Fox P.L.L.C.

The Commissioner is authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☐ Credit any over payments
☐ Charge any additional fee(s) during the pendency of this application
☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

FEE CALCULATION

1. BASIC FILING FEE

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
1001	770	2001	385	Utility filing fee	\$770.00
1002	340	2002	170	Design filing fee	
1003	530	2003	265	Plant filing fee	
1004	770	2004	385	Reissue filing fee	
1105	160	2005	80	Provisional filing fee	

SUBTOTAL (1) (\$) 770.00

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Extra	Fee from below	Fee Paid
Total Claims 50 - 20** = 30	X 18.00	= \$540.00
Indep. Claims 2 - 3** = 0	X 0	= 0
Multiple Dependent		= 0

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description
1202	18	2202	9	Claims in excess of 20
1201	86	2201	43	Independent claims in excess of 3
1203	290	2203	145	Multiple dependent claim, if not paid
1204	86	2204	43	**Reissue independent claims over original patent
1205	18	2205	9	**Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$) 540.00

**or number previously paid, if greater; For Reissue, see above

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
1051	130	2051	65	Surcharge - late filing fee or oath	
1502	50	2052	25	Surcharge-late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for <i>ex parte</i> reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	420	2252	210	Extension for reply within second month	
1253	950	2253	475	Extension for reply within third month	
1254	1,480	2254	740	Extension for reply within fourth month	
1255	2,010	2255	1,005	Extension for reply within fifth month	
1401	330	2401	165	Notice of Appeal	
1402	330	2402	165	Filing a brief in support of an appeal	
1403	290	2403	145	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,330	2453	665	Petition to revive - unintentional	
1501	1,330	2501	665	Utility issue fee (or reissue)	
1502	480	2502	240	Design issue fee	
1503	640	2503	320	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	770	2809	385	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	770	2810	385	For each additional invention to be examined (37 CFR 1.129(b))	
1801	770	2801	385	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	


Other fee (specify) _____

* Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$) 0

SUBMITTED BY

Complete (if applicable)

Name (Print/Type)	Jeffrey S. Weaver	Registration No. (Attorney/Agent)	45,608	Telephone	202-371-2600
Signature		Date	12-9-03		

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Zhao *et al.*

Appl. No. To be assigned (Div. of Appl.
No. 10/101,751; filed March 21, 2002)

Filed: December 9, 2003

For: **Method for Making an Enhanced
Die-Up Ball Grid Array Package
With Two Substrates** (as amended)

Art Unit: To be assigned

Examiner: To be assigned

Atty. Docket: 1875.1730001

**Authorization To Treat A Reply As Incorporating An Extension Of
Time Under 37 C.F.R. § 1.136(a)(3)**

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

The U.S. Patent and Trademark Office is hereby authorized to treat any concurrent or future reply that requires a petition for an extension of time under this paragraph for its timely submission, as incorporating a petition for extension of time for the appropriate length of time. The U.S. Patent and Trademark Office is hereby authorized to charge all required extension of time fees to our Deposit Account No. 19-0036, if such fees are not otherwise provided for in such reply.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Jeffrey S. Weaver
Attorney for Applicants
Registration No. 45,608

Date: 12-9-03

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*Admitted only in Maryland
*Admitted only in Virginia
*Practice limited to
Federal Agencies

December 9, 2003

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Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Mail Stop Patent Application

Re: U.S. Divisional Patent Application under 37 C.F.R. § 1.53(b)
Appl. No. To be assigned; Filed: December 9, 2003 (Divisional of Appl. No.
10/101,751; filed: March 21, 2002)
For: **Method for Making an Enhanced Die-Up Ball Grid Array Package
With Two Substrates (as amended)**
Inventors: Zhao *et al.*
Our Ref: 1875.1730001

Sir:

The following documents are forwarded herewith for appropriate action by the U.S.
Patent and Trademark Office:

1. PTO Fee Transmittal (Form PTO/SB/17);
2. PTO Utility Patent Application Transmittal (Form PTO/SB/05);
3. U.S. Utility Patent Application entitled:

**Method for Making an Enhanced Die-Up Ball Grid Array Package With
Two Substrates (as amended)**

and naming as inventors:

Sam Ziqun Zhao
Reza-ur Rahman Khan
Imtiaz Chaudhry

the application consisting of:

- a. An Application Data Sheet (37 C.F.R. § 1.76);
- b. A copy of the executed Declaration, as originally filed in U.S. Appl. No.10/101,751;
- c. A specification containing:
 - i. 41 pages of description prior to the claims;
 - ii. 13 pages of claims (82 claims);
 - iii. a one (1) page abstract;
- d. 35 sheets of drawings (Figures 1A, 1B, 2A, 2B, 3-14, 15A, 15B, 16, 17, 18A-18E, 19A-19F, 20A-20M, 21A-21G);
4. Authorization to Treat a Reply As Incorporating An Extension of Time Under 37 C.F.R. § 1.136(a)(3);
5. A Preliminary Amendment Under 37 C.F.R. § 1.115;
6. Two (2) return postcards; and
7. Form PTO-2038 Credit Card Payment Form for \$1,310.00 to cover:
\$ 770.00 Filing fee for patent application; and
\$ 540.00 Fee for excess claims.

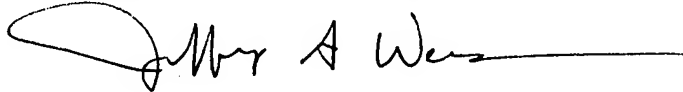
It is respectfully requested that, of the two attached postcards, one be stamped with the filing date of these documents and returned to our courier, and the other, prepaid postcard, be stamped with the filing date and unofficial application number and returned as soon as possible.

Commissioner for Patents
December 9, 2003
Page 3

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

A handwritten signature in black ink, appearing to read "Jeffrey S. Weaver", with a long horizontal line extending to the right.

Jeffrey S. Weaver
Attorney for Applicants
Registration No. 45,608

JSW/asl
Enclosures

SKGF_DC1:207438.1